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1. (Four Times Amended) A ~~vacuum~~ process apparatus for processing at least one workpiece comprising a chamber with[:] at least two openings defining respective opening areas [for one of treating and handling said at least one workpiece thereof]; and a transport device[, comprising] having a drive shaft rotatable around a rotational axis of said drive shaft; at least two conveyors [arranged at said transport device] for at least one workpiece each[, said transport device comprising], and a transport arm for each conveyor [projecting from] operatively associated with said drive shaft; said arms being operatively coupled to said conveyors to move said conveyors independently of each other relative to said drive shaft and to have at least a radial movement component perpendicular to the drive shaft rotational axis via encapsulated, independent drives, said drives controlling closing and opening of said openings with movement of said conveyors relative to said drive shaft.

2. The apparatus of claim 1, said openings defining an opening area each, with normals on said opening areas being warped with respect to said rotational axis.

3. (Amended) The apparatus of claim 1, wherein said conveyors are additionally movable [at least one of] parallel to said drive shaft [and of normally with respect to said drive shaft].

4. The apparatus of claim 1, wherein said conveyors, once positioned adjacent one of said openings by rotation of said transport device, are movable towards and from said opening in a normal direction of said opening areas.

5. The apparatus of claim 1, wherein rotation of said transport device around said rotational axis substantially define a cone shaped trajectory surface with a cone opening angle with respect to said rotational axis of not more than 30°.

6. The apparatus of claim 5, wherein each of said openings defines an opening area, with normals on said opening areas pointing in a direction of respective generatrix of said cone-shaped trajectory surface.

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7. The apparatus of claim 6, wherein said openings are arranged along a circle cut by said cone-shaped trajectory surface by a geometric plane arranged perpendicularly to said rotational axis.

8. The apparatus of claim 1, said transport device residing within said chamber further comprising at least one of a load lock chamber and of a station for treating said workpiece communicating by one of said openings with said chamber.

9. The apparatus of claim 8, further comprising gas inlet means and pumping means at least at one of said station and chambers.

10. The apparatus of claim 1, wherein at least one of said conveyors comprise a seal member for sealingly closing one of said openings when said at least one conveyor is rotated adjacent to said opening by said transport device.

11. The apparatus of claim 10, wherein said seal member is formed by a conveyor plate for said workpiece.

12. The apparatus of claim 1, wherein each said conveyor comprises a conveyor plate with a projecting positioning pin for positioning a disk shaped workpiece with a central bore.

13. The apparatus of claim 12, further comprising holding means for said workpiece on said conveyor plate.

14. The apparatus of claim 13, said holding means being formed by spring means acting radially with respect to said pin.

15. The apparatus of claim 1, said workpiece being one of compact disk workpieces and of magneto-optical storage disk workpieces.

16. (Three Times Amended) A vacuum chamber for processing at least one workpiece, comprising at least two openings defining respective opening areas [for treating or handling said at least one workpiece thereat]; a transport device with a drive shaft for rotating said transport device around a rotational axis of said drive shaft; at least two conveyors [arranged at said transport device for the workpiece thereof, said transport device further comprising], and a transport arm for each conveyor (projecting from) operatively associated with said drive shaft[, said arms] and each being operatively coupled to one of said conveyors to move said conveyors independently of each other relative to said drive shaft, said transport arms having at least a radial movement component relative to said drive shaft rotational axis via encapsulated independent drives.

17. The chamber of claim 16, wherein each of said openings defines an opening area with, normals on said opening areas being warped with respect to said rotational axis.

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18. (Amended) The chamber of claim 16, wherein said conveyors are additionally movable [at least one of] parallel to said rotational axis [and of normally with respect to said rotational axis].

19. The chamber of claim 16, wherein said conveyors, once positioned adjacent one of said openings by rotation of said transport device, are movable towards and from said opening in a normal direction of said opening areas.

20. The chamber of claim 16, wherein rotation of said transport device around said rotational axis substantially defines a cone-shaped trajectory surface, with a cone opening angle with respect to said rotational axis of not more than 90°.

21. The chamber of claim 20, wherein each of said openings define an opening area with, normals on said opening areas pointing in a direction of respective generation of said cone-shaped trajectory surface.

22. The chamber of claim 21, wherein said openings are arranged along a circle intersected by said cone-shaped trajectory surface by a geometric plane arranged perpendicular to said rotational axis.

23. The chamber of claim 16, wherein at least one of said conveyors comprise a seal member for sealingly closing one of said openings when said at least one conveyor is rotated adjacent to said opening by said transport device.

24. The chamber of claim 23, wherein said seal member is formed by a conveyor plate for said at least one workpiece.

25. The chamber of claim 16, wherein said conveyors comprises a conveyor plate with a projecting positioning pin for positioning a disk shaped workpiece with a central bore.

26. The chamber of claim 25, further comprising holding means for said at least one workpiece on said conveyor plate.

27. (Amended) The chamber of claim [16], 26 wherein said holding means is formed by spring means acting radially with respect to said pin.

28. The chamber of claim 16, wherein said conveyors are configured to hold workpieces in the form of one of compact disk workpieces and of magneto-optical storage disk workpieces.

29. The chamber of claim 16, wherein said conveyors comprise a support plate with an upstanding pin; spring loaded holding portions around said pin being biased radially outwardly with respect to said pin, and further comprising holding portions projecting outwardly with respect to said pin and being biased slightly outside the surface of said pin.

36. (Three times amended) A vacuum chamber with at least two openings therein and a workpiece transport arrangement with which at least one workpiece within the chamber is selectively brought into a position adjacent to one of said openings, whereby the transport

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arrangement is provided within the chamber rotatably around a rotational axis and carries at least two members for holding a workpiece each. a rotation drive is provided to rotate said workpiece transport arrangement, and at least two displacement drives are provided for displacing said at least one workpiece each with respect to said transport arrangement, whereby said members are selectively brought into a position aligned with one of said openings by rotation of said transport arrangement and from such position a workpiece is displaceable towards and from said opening by one of said displacement drives, and said member and said displacement drives are operatively mounted on said transport arrangement rotation drive, said displacement drive being arranged to control closing and opening of respective ones of said at least two openings.

41. (Twice amended) A vacuum chamber with at least two openings and a workpiece transport arrangement with which at least one workpiece within the chamber is selectively brought into a position adjacent to one of said openings, whereby the transport arrangement is provided within the chamber rotatably around a rotational axis and carries at least two members for holding a workpiece each, a rotation drive is provided to rotate said workpiece transport arrangement, and at least two displacement drives are provided for displacing said at least one workpiece each with respect to said transport arrangement whereby said

members are selectively brought into a position aligned with one of said openings by rotation of said transport arrangement and from such position a workpiece is displaceable towards and from said opening by one of said displacement drives in a direction with a radial component relative to said rotational axis, and said displacement drives are operable independently of each other so as to control closing and opening of said opening.

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45 22. (Twice Amended) A
vacuum chamber, comprising
at least two openings
defining respective opening
areas; and a transport device
operatively arranged relative to
the at least two openings and
including a member movable
relative to a rotational axis
thereof, at least two conveyors
for transporting at least one
workpiece each, and at least one
linear drive for each of said at
least two conveyors being
between said movable member and
a respective conveyor of said at
least two conveyors and
configured to linearly move said
respective conveyors relative to
said movable member
independently from other
conveyors of said at least two
conveyors, said at least one
linear drives being arranged to
control closing and opening of
said at least two openings.

50 23. (Amended) A vacuum
chamber with at least two
openings and a workpiece
transport arrangement with which
at least one workpiece within the
chamber is selectively brought
into a position adjacent to one
of said openings, whereby the
transport arrangement is provided
within the chamber rotatably
around a rotational axis and
carries at least one member for
holding a workpiece, a rotation
drive is provided to rotate said
workpiece transport arrangement,
and a sealed displacement drive
is arranged between said
transport arrangement and said at
least one member for displacing a
workpiece with respect to said
transport arrangement, whereby
said member is selectively
brought into a position aligned
with one of said openings by
rotation of said transport
arrangement and from such
position a workpiece is
displaceable towards and from
said opening by said displacement
drive, and said member and said
displacement drive are
operatively mounted relative to
said transport arrangement
rotation drive, said displacement
drive being further arranged to
control opening and closing of
said opening.

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35 24. (Amended) A method of processing at least one workpiece comprising the steps of

rotating a transport device member around a rotational axis to bring the at least one workpiece adjacent an opening in a vacuum chamber having at least two openings, and

moving at least two conveyors with at least one movement component radial relative to said rotational axis, independently of each other relative to the transport device member so as selectively to move the at least one workpiece towards and away from the adjacent opening and thereby controlling opening and closing of said opening.

Cancel Claims 35-57.

36 30 58. (New) The apparatus of claim 1, wherein said closing is a sealing closing.

37 59. (New) The apparatus of claim 1, wherein, for processing at least one disk-shaped workpiece, said conveyors are configured to hold at least one of said workpieces with a predetermined positioning of a disk plane thereof, and said drive shaft arranged to move said conveyors in a direction which is non-parallel to said disk plane.

38 60. (New) The apparatus of claim 59, wherein said direction is perpendicular to said disk plane.

39 61. (New) The chamber of claim 16, wherein said closing is a sealing closing.

40 62. (New) The chamber of claim 16, wherein, for processing at least one disk-shaped workpiece, said conveyors are configured to hold at least one of said workpieces with a predetermined positioning of a disk plane thereof, and said drive shaft arranged to move said conveyors in a

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direction which is non-parallel to said disk plane.

37 63. (New) The chamber of claim 62, wherein said direction is perpendicular to said disk plane.

37 64. (New) The chamber of claim 30, wherein said members are arranged to perform the closing.

37 65. (New) The chamber of claim 30, wherein the closing is a sealing closing.

37 66. (New) The chamber of claim 30, wherein, for processing at least one disk-shaped workpiece, said members are configured to hold at least one of said workpieces with a predetermined positioning of a disk plane thereof, and said at least one disk-shaped workpiece is arranged to be displaceable by said displacement drive in a direction which is non-parallel to said disk plane.

37 67. (New) The chamber of claim 66, wherein said direction is perpendicular to said disk plane.

37 68. (New) The chamber of claim 31, wherein the closing is a sealing closing.

37 69. (New) The chamber of claim 31, wherein, for processing at least one disk-shaped workpiece, wherein said members are configured to hold said at least one workpiece with a predetermined positioning of a disk plane thereof, and said at least one disk-shaped workpiece is arranged to be displaced in a direction which is non-parallel to said disk plane.

37 70. (New) The chamber of claim 69, wherein said direction is perpendicular to said disk plane.

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46 71. (New) The chamber of claim 32, wherein the closing is a sealing closing.

47 72. (New) The chamber of claim 32, wherein said at least one workpiece is a disk-shaped workpiece, and said at least one linear drive has a direction which is non-parallel to a plane of said disk-shaped workpiece.

48 73. (New) The chamber of claim 72, wherein the direction is perpendicular to said plane.

49 74. (New) The chamber of claim 32, wherein said at least one linear drive is encapsulated within said chamber.

50 75. (New) The chamber of claim 38, wherein the closing is a sealing closing.

51 76. (New) The chamber of claim 38, wherein said displacement drive is a linear drive.

52 77. (New) The chamber of claim 38, wherein, for processing at least one disk-shaped workpiece, said member is configured to hold at least one of said workpieces with a predetermined positioning of a disk plane thereof, and said at least one disk-shaped workpiece is arranged to be displaceable by said displacement drive in a direction which is non-parallel to said disk plane.

53 78. (New) The chamber of claim 77, wherein said offset direction is perpendicular to said disk plane.

54 79. (New) The method of claim 34, wherein the controlled closing is a sealing closing.

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57 80. (New) The method of claim 34, wherein the closing and opening is performed by the conveyors.

58 81. (New) The method of claim 34, wherein the moving of the conveyors is in a linear direction.

59 82. (New) The method of claim 34, wherein the moving of the conveyors is effected, for processing at least one disk-shaped workpiece, in a direction which is non-parallel to said disc-shaped workpiece.

60 83. (New) The method of claim 82, wherein said direction is perpendicular to the plane.